

American Rivers • Columbia Riverkeeper • Defenders of Wildlife •  
Idaho Conservation League • Institute for Fisheries Resources •  
Pacific Coast Federation of Fishermen's Associations •  
Natural Resources Defense Council • Northwest Guides and Anglers  
Association • Northwest Sportfishing Industry Association •  
Pacific Rivers • Save Our Wild Salmon Coalition •  
Snake River Waterkeeper • Washington Chapter Sierra Club •  
Washington Environmental Council

April 13, 2020

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Submitted Via Online Comment Portal & Email

**RE: Comments on 401 Certifications for Eight Federal Columbia and Snake River Dams**

Washington Department of Ecology:

We write on behalf of American Rivers, Columbia Riverkeeper, Defenders of Wildlife, the Idaho Conservation League, the Institute for Fisheries Resources, the Natural Resources Defense Council, the Northwest Guides and Anglers Association, the Northwest Sportfishing Industry Association, the Pacific Coast Federation of Fishermen's Associations, Pacific Rivers, Save Our Wild Salmon Coalition, Snake River Waterkeeper, Washington Chapter Sierra Club, and the Washington Environmental Council with respect to Clean Water Act (CWA) 401 certifications for eight federal dams on the Columbia and Snake rivers. Washington state has an historic opportunity to protect Columbia and Snake river water quality and fisheries. For the first time, Washington can require that the eight federal dams on the lower Columbia and lower Snake rivers meet Washington's water quality standards. These eight federal dams have operated for decades without federal licenses or pollution discharge permits. Washington now has a critical opportunity to address the many well-documented impacts to water quality and designated beneficial uses caused and exacerbated by the dams. The Washington Department of Ecology (Ecology) should exercise its authority under section 401 to hold the U.S. Army Corps of Engineers (Corps) accountable for significant and well-documented impacts to water quality and fisheries.

## **I. Background**

Pursuant to the requirements of a legal settlement with Columbia Riverkeeper, the Corps applied to the U.S. Environmental Protection Agency (EPA) in 2015 for eight NPDES permits. The permits would regulate previously un-authorized pollution discharges from eight dams operated by the Corps on the Columbia and Snake rivers. EPA began drafting these NPDES permits and requested preliminary 401 certifications for these permits from Ecology in fall of 2018. EPA then formally requested Ecology's 401 certifications on December 19, 2018. But on February 1, 2019, EPA abruptly, and without explanation, withdrew its request for the 401 certifications. Notably, however, EPA withdraw the requests for 401 certifications one day after The Seattle Times' front-page story describing the temperature crisis on the Columbia and Snake rivers and Ecology's 401 certification authority over the federal dams.<sup>1</sup> Notwithstanding EPA's withdrawal, our groups submitted comments to Ecology regarding the 401 certifications on February 19, 2019, and such comments and supporting documents are incorporated herein by reference. Thereafter, Ecology sent a letter to EPA (1) explaining that Ecology had not waived 401 certification for these NPDES permits and (2) denying 401 certifications for these NPDES permits unless EPA re-issued the draft NPDES permits and re-applied to Ecology for the necessary 401 certifications.

## **II. NPDES Permits Subject to 401 Certification**

On March 17, 2020, EPA again requested<sup>2</sup> Ecology's section 401 certification for the following draft National Pollutant Discharge Elimination System (NPDES) permits:

- Ice Harbor Lock and Dam, NPDES Permit No. WA 0026816
- Lower Monumental Lock and Dam, NPDES Permit No. WA0026808
- Little Goose Lock and Dam, NPDES Permit No. WA0026786
- Lower Granite Lock and Dam, NPDES Permit No. WA0026794
- Bonneville Project, NPDES Permit No. WA 0026778
- The Dalles Lock and Dam, NPDES Permit No. WA 0026701
- John Day Project, NPDES Permit No. WA0026832
- McNary Lock and Dam, NPDES Permit No. WA 0026824

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<sup>1</sup> Mapes, Lynda, "Washington state to regulate federal dams on Columbia, Snake to cool hot water, aid salmon," The Seattle Times (Jan. 31, 2019); *see also* Mapes, Lynda, "EPA ices Washington state's effort to regulate hot water in Columbia, Snake rivers," The Seattle Times (Feb. 6, 2019).

<sup>2</sup> EPA, *Letter from Susan Poulson, EPA NPDES Permits Section Manager, to Vince McGowan of Ecology requesting 401 Certifications* (March 17, 2020).

The eight NPDES permits would authorize discharges from cooling water, equipment, floor drains, sumps, facility maintenance water, and other miscellaneous discharges.

### **III. Clean Water Act Section 401**

Congress enacted section 401 to allow states to protect their waterways from the impacts of federally permitted activities, like dams, that discharge into state waters.<sup>3</sup> Before any federal agency can issue a permit for any activity that involves a discharge into a navigable water, the federal agency must obtain a state 401 certification. The state's 401 certification can contain any conditions necessary to ensure that the applicant for the federal permit will not violate the state's water quality standards, or other laws, and those conditions "shall become" part of the resulting federal license.

In the landmark case *PUD No. 1 of Jefferson County v. Washington Dept. of Ecology*, Washington established that its section 401 certification authority reached all water quality impacts of federally permitted dams.<sup>4</sup> The United States Supreme Court agreed with Washington that, under section 401, the existence of any discharge at a federally permitted dam gives Washington the authority to address all of that dam's impacts to water quality and designated beneficial uses of the waterway. This includes temperature in the reservoirs, spill over the dams, total dissolved gas, and salmon migration.

### **IV. Specific Comments on 401 Certifications for the Corps' Dams**

The decline of Columbia Basin salmon runs contributes to the starvation of Southern Resident orcas and has forced significant curtailment of fall salmon and steelhead fishing in the Columbia River in 2018 and 2019.<sup>5</sup> Washington should use its authority under the Clean Water Act to do what the Trump administration and federal agencies cannot or will not do: protect and restore salmon, Pacific lamprey, sturgeon, Southern Resident orcas, and other species threatened with extinction.

As demonstrated by empirical evidence and EPA modeling, the presence and operation of individual and multiple dams combines to warm the Columbia and Snake Rivers to unsafe levels

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<sup>3</sup> *S.D. Warren Co. v. Maine Bd. Of Env'tl. Prot.*, 547 U.S. 370, 386 (2006).

<sup>4</sup> 511 U.S. 700, 707–08 (1994) (explaining that states may regulate the impacts of a project as a whole under Section 401, so long as a discharge is involved). The fact that the § 401 certifications at issue were triggered by federal NPDES permits, rather than FERC licenses, has no bearing on the scope of Ecology's authority under § 401. *Cf. Or. Nat. Desert Ass'n v. Dombeck*, 172 F.3d 1092, 1097–98 (9th Cir. 1998) (explaining that § 401 certifications can impose far-reaching protections for water quality, provided a discharge triggers the state's § 401 authority).

<sup>5</sup> *See, e.g., WDFW, News Release: Most of the Columbia River closing to salmon and steelhead fishing* (Sept. 11, 2018).

for designated beneficial uses.<sup>6</sup> Temperatures are also increasing over historical levels due to the impacts of climate change.<sup>7</sup> During the summer, the rivers are frequently so warm that salmon are unable to migrate upriver to spawn.<sup>8</sup> When river temperatures exceed 20°C for several days at a time—as happens with increasing frequency due to climate change<sup>9</sup>—salmon have difficulty migrating upstream and begin succumbing to stress and disease.<sup>10</sup> According to the Fish Passage Center, “[U]nder a climate change scenario, the long-recognized and largely unaddressed problem of high water temperatures in the [Columbia and Snake rivers] becomes an ever-increasing threat to the survival of salmon.”<sup>11</sup>

In the early 2000s, EPA completed a draft Columbia and Snake River Temperature Total Maximum Daily Load (TMDL). The temperature TMDL is a pollution budget designed to protect salmon from hot water in the Columbia and Snake rivers. Notably, EPA’s modeling clearly indicated that the dams increase water temperatures in ways that cause or contribute to water quality standard violations, and EPA concluded that “The majority of the temperature increases (as much as 6 °C) are caused by the larger dams[.]”<sup>12</sup>

Despite decades of litigation, federal agencies have not complied with the Endangered Species Act, CWA, or recovered the Columbia Basin’s once-mighty salmon runs.<sup>13</sup> EPA has not issued a final temperature TMDL. Despite two recent federal court decisions by the Western District of Washington<sup>14</sup> and the Ninth Circuit Court of Appeals<sup>15</sup> holding EPA responsible for issuing the TMDL, EPA has given no indication that it intends to comply with the CWA, the courts’ orders, or its previous commitments to Washington in a timely fashion. Washington listed the Columbia and Snake rivers as impaired by high temperatures in 1994, and Washington asked EPA for a temperature TMDL over 20 years ago.<sup>16</sup>

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<sup>6</sup> EPA Region 10, *RBM-10 Columbia River Temperature TMDL-Preliminary Technical Information Presentation to Columbia River Tribes* (August 14, 2018); RMJOC II, *Climate and hydrology datasets for RMJOC Long-term Planning Studies. Second Edition. Part I: Hydroclimate Projections and Analyses* (2018); Fish Passage Center, *Review of April 2016 Draft of NOAA Fisheries Report*, p. 1 (May 4, 2016).

<sup>7</sup> U.S. Global Change Research Program, *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment*, Volume II (2018).

<sup>8</sup> Fish Passage Center, *Requested data summaries and actions regarding sockeye adult fish passage and water temperature issues in the Columbia and Snake rivers* (Oct. 28, 2015).

<sup>9</sup> John Yearsley, *A semi-Lagrangian water temperature model for advection-dominated river systems*, 45 *Water Resources Research*, pp. 15–16 (2009).

<sup>10</sup> National Marine Fisheries Service, *2015 Adult Sockeye Salmon Passage Report*, pp. 20–22 (2016).

<sup>11</sup> Fish Passage Center, *Review of April 2016 Draft of NOAA Fisheries report 2015 Sockeye Salmon Passage Report*, p. 1 (May 4, 2016).

<sup>12</sup> U.S. EPA, *Preliminary Draft Columbia/Snake Temperature TMDL*, p. 39 (July 2003).

<sup>13</sup> See *NWF v. NMFS*, 184 F. Supp. 3d 861 (D. Or. 2016).

<sup>14</sup> *Riverkeeper v. Pruitt*, 337 F. Supp. 3d 989 (W.D. Wash. 2018).

<sup>15</sup> *Columbia Riverkeeper v. Wheeler*, 944 F.3d 1204, 1206 (9th Cir. 2019).

<sup>16</sup> *NWF v. U.S. Army Corps of Eng’rs*, 132 F. Supp. 2d 876 (D. Or. 2001).

Washington’s salmon, orcas, and fisheries cannot wait for EPA to issue a TMDL. Section 401 provides Washington the critical legal tool to require the Corps to address temperature impacts from federal dams now—a tool Washington has already used for federally licensed private dams on the Columbia. In fact, even after EPA issues a final TMDL, the provisions in that TMDL are not self-executing. Washington will need to incorporate those requirements into 401 certifications to turn them into binding measures.<sup>17</sup>

EPA may take the position that Washington’s review and 401 certifications are constrained to oil pollution, cooling water, and other pollutants discharged through point sources at the dams. However, it is settled law that “the conditions a state may require [in 401 certification] are not confined to the discharge itself . . . .”<sup>18</sup> The Supreme Court specifically held that Clean Water Act § 401(d) refers to the “compliance of the applicant, not the discharge,” with water quality standards.<sup>19</sup> Moreover, issuing comprehensive 401 certifications for the Corps’ dams and reservoirs would be consistent with Ecology’s treatment of other federally permitted dams in Washington<sup>20</sup>—including Columbia River dams operated by public utility districts.<sup>21</sup> Accordingly, Ecology has the legal authority (and the legal obligation) to ensure, through the pending 401 certifications, that the applicant’s activities—here, the dams and reservoirs—meet Washington water quality standards.

Many large- and small-scale modifications to the structure and operation of the dams and reservoirs could improve water quality and native fish survival. Ecology should use the 401 certification process to require the Corps to model and identify mitigation actions including modifying adult and juvenile fishways, selectively drawing down certain reservoirs, increasing spring and summer flows, dam removal, and other measures that could reduce temperature and enhance fish survival. We recommend that Ecology consider the following draft conditions and comments to ensure compliance with numeric and narrative water quality standards, protect designated beneficial uses, and comply with the state’s antidegradation policy.

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<sup>17</sup> EPA, *Preliminary Draft Columbia/Snake Temperature TMDL*, p. viii (explaining that “TMDLs are not self-implementing. Nor do they impose any binding legal requirements under federal law.”); *see also id.* at vii (stating “the TMDL is implemented through the NPDES Permit Program, **State Water Quality Standards Certification Program**, States Non-point Source Management Program and other appropriate mechanisms.” (emphasis added)).

<sup>18</sup> Congressional Research Service, *Clean Water Act Section 401: Background and Issues*, p. 3 (2015).

<sup>19</sup> *PUD No. 1 of Jefferson County v. Wash. Dep’t of Ecology*, 511 U.S. 700, 711–12 (1994).

<sup>20</sup> *See generally* Ecology, *Water Quality Certifications for Existing Hydropower Dams: Guidance Manual* (March 2005).

<sup>21</sup> *E.g.* Ecology Order No. 4219, *401 Certification for Priest Rapids Hydropower Project*, p. 39 (2007); *see also, e.g.*, Ecology Order No. 8981, *401 Certification for Wells Hydropower Project*, p. 22 (2012).

## A. Temperature

We recommend that Ecology consider the following draft conditions to address designated use protection and compliance with narrative and numeric water quality standards.

- The load allocations, and any implementation plans, of a temperature TMDL for the Columbia and Snake rivers shall become conditions of the 401 certifications whenever such TMDL or implementation plans are issued by EPA or Washington.
- Pursuant to Washington Administrative Code (WAC) 173-201A-510(5), the Corps must, within two years, develop and submit to Ecology a water quality attainment plan (WQAP) that provides a detailed strategy for achieving compliance with temperature standards in the face of climate change in the reservoirs, fish passage facilities, and tailwaters, including:
  - Identify and describe in detail all measures, and combinations of measures, that could meet temperature standards, including, but not limited to, the following:
    - Seasonal reservoir drawdown to various pool levels, including drawdown to the spillway crest and to the maximum extent achievable under the dam's current configuration;
    - Releasing water stored pursuant to the US-Canada Columbia River Treaty to enhance spring and early summer flows for fish migrations and habitat;
    - Releasing cool water from Dworshak Dam and/or the Hells Canyon dam complex;
    - Altering the dam structure and fishways to allow seasonal reservoir drawdowns below the levels achievable under the dam's current configuration;
    - Increasing attraction flows to fishways to reduce adult migration times over dams;
    - Dam removal;
    - Altering fish ladders and intakes to achieve water quality standards within the fish ladders and to reduce or eliminate temperature differences between the tailwater and the water exiting the fish ladders; and
    - Pumping cool water into fish ladders from the coldest part of the reservoir, the tailwater, or artificially cooling the water that feeds the fish ladders.
  - Model and engage in other technical work to define the expected impacts of those identified measures, and combinations of measures, on water temperatures in the reservoir, forebays and tailraces fish ladders, and downstream free flowing river sections for individual dams and the system as a whole.

- If Ecology determines, pursuant to WAC 173-201A-510(5)(c) and (d), that the WQAP submitted by the Corps does not ensure compliance with all applicable water quality criteria or provide a reasonable assurance that the dam will not cause or contribute to a violation of the water quality standards, Ecology shall retain the right to revoke or reopen the certification.
- If Ecology determines that the WQAP submitted by the Corps would ensure compliance with the temperature water quality criteria, the Corps must implement the measures in the WQAP as soon as possible, but in no case later than five years after Ecology makes the determination required by this section.

## **B. Total Dissolved Gas**

We recommend that Ecology consider the following draft conditions to protect designated uses and meet narrative and numeric water quality standards.

- Except during involuntary spill events, dam operations—including spill to enhance fish passage—should not cause or contribute to exceedances of the applicable total dissolved gas (TDG) water quality criteria or any short-term modification thereto authorized under Washington law.
- During the voluntary spill conditions during the spring fish-spill season (generally April through June), the Corps must cause the maximum volume of water to flow over the spillway of each dam that will not result in violations of Washington’s TDG water quality criteria for the Columbia and Snake rivers described in WAC 173-201A-200(1)(f)(ii)(B) or future short-term or permanent amendments thereto.
- The Corps must conduct field monitoring for gas bubble trauma in salmonids and other forms of vertebrate and invertebrate aquatic life throughout the fish spill season, including when TDG levels exceed the water quality criteria during flood or involuntary spill events, as contemplated by WAC 173-201A-200(1)(f)(ii)(B)(II).

## **C. Monitoring**

We recommend that Ecology include conditions that require routine monitoring and evaluation of water quality parameters impacted by the presence and operation of federal dams. For example, Ecology should require that the federal agencies conduct, and submit to Ecology on a regular basis, water quality monitoring sufficient to

document: (1) baseline environmental conditions; (2) compliance with the conditions of the certification; and (3) progress toward meeting water quality standards in the reservoirs and fishways.

#### **D. Existing and Designated Use Studies**

We recommend that Ecology include conditions to protect existing and designated uses. In particular, Ecology could include conditions, such as the examples provided below, to inform revised and future 401 certifications. Examples include:

- Within one year of permit issuance, the Corps shall complete and submit to Ecology a report/study describing:
  - Existing and designated beneficial uses impacted by the dams;
  - Historic impacts of the project on the existing and designated beneficial uses;
  - Anticipated future impacts, in particular climate change of the dams on the existing and designated beneficial uses.

The report/study should examine uses that do not currently exist and uses that would be available without the project impacts.

#### **E. General Conditions**

We recommend that Ecology include general conditions similar to those the agency includes in 401 certifications on Federal Energy Regulatory Commission licenses. For example, Ecology should include a condition that states: “Notwithstanding any other language in the certification, any violation of water quality standards is prohibited.” Ecology should also state that conditions are subject to changes based on new state or federal laws that reflect better understanding of how to protect designated beneficial uses. In addition, Ecology should include reopener language to provide flexibility in the event Ecology needs to review the certifications based on new information to meet water quality standards, TMDLs, and other applicable requirements of state law.

#### **F. Oil, Grease, and Cooling Water**

EPA’s draft NPDES permits regulate point source discharges, including oil, grease, and cooling water. We recommend that Ecology include conditions to ensure that oil, grease, cooling water, and other point source discharges comply with state water quality standards, protect designated uses, and comply with the state’s antidegradation policy. As part of Ecology’s



evaluation, the agency should evaluate EPA’s proposed approach to requiring that the dams transition to environmentally acceptable lubricants (EALs). In the draft permits, EPA proposes to require the use of EALs for all equipment with oil to water grease interfaces, unless technically infeasible. Ecology should evaluate conditions to ensure the state retains authority to review and approve the federal agencies’ determinations on whether EALs are “technically infeasible.”

**G. Other Potential Conditions**

We also recommend that Ecology evaluate potential conditions to address:

- Flow for habitat and recreation;
- pH, dissolved oxygen, turbidity, and toxics; and
- Pacific lamprey passage.

**V. Conclusion**

Ecology and Washington led the nation in achieving water quality regulation of FERC-licensed dams. Now, Washington has an unprecedented opportunity improve water quality and fisheries by setting appropriate conditions on federal dams. Cleaner Columbia and Snake rivers will protect endangered salmon, help feed starving Southern Resident orcas, and support all of the communities in and outside the Columbia River basin that depend on a clean water and healthy salmon.

In particular, we urge Ecology to exercise its section 401 authority broadly to address the dams’ significant impacts to water quality and designated beneficial uses that have, to date, gone unaddressed under alternative regulatory pathways. Ecology should require the Corps to address oil, temperature, and other pollution caused by the eight dams and reservoirs. Such action is in line with Washington’s leadership on climate change, salmon restoration, and state regulatory authority over water quality protection.

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As our region becomes hotter, our rivers and the species and communities that depend on them are suffering the consequences. If the Columbia and Snake river fisheries are to withstand climate change, Washington must exercise its authority to address the significant impacts from federal dams.

Sincerely,



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Submitted on behalf of:

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